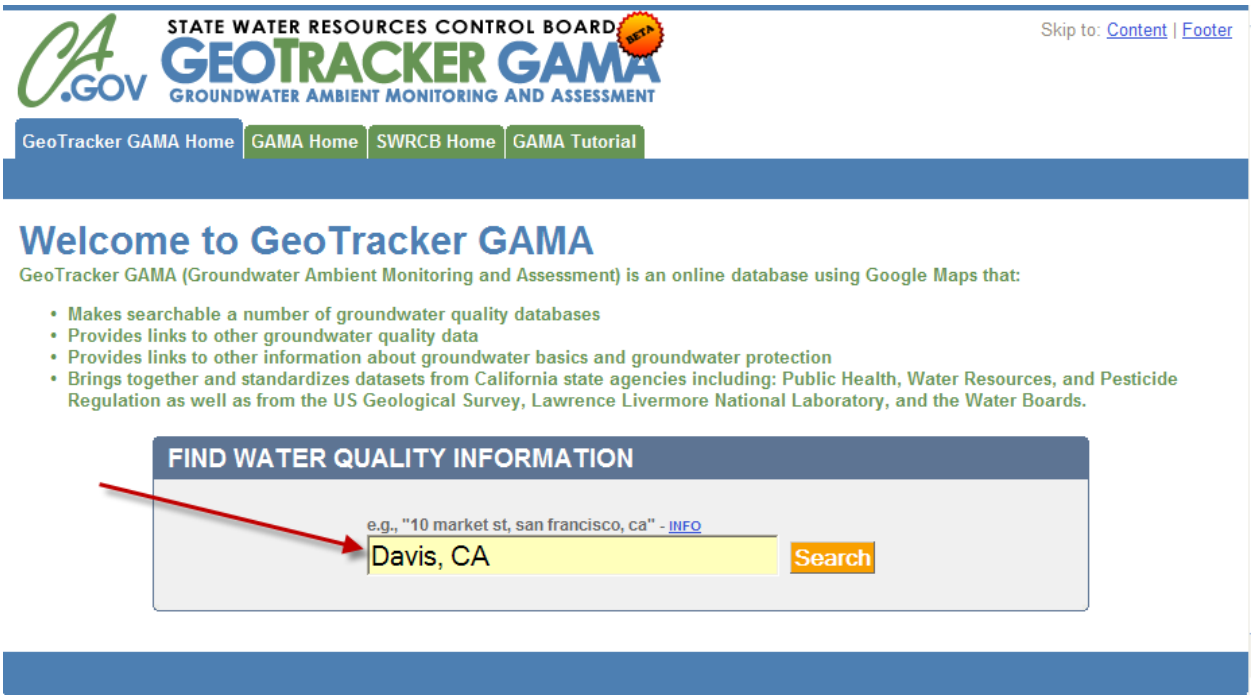
TUTORIAL SITE MAP – Table of Contents

GEOTRACKER GAMA TUTORIAL

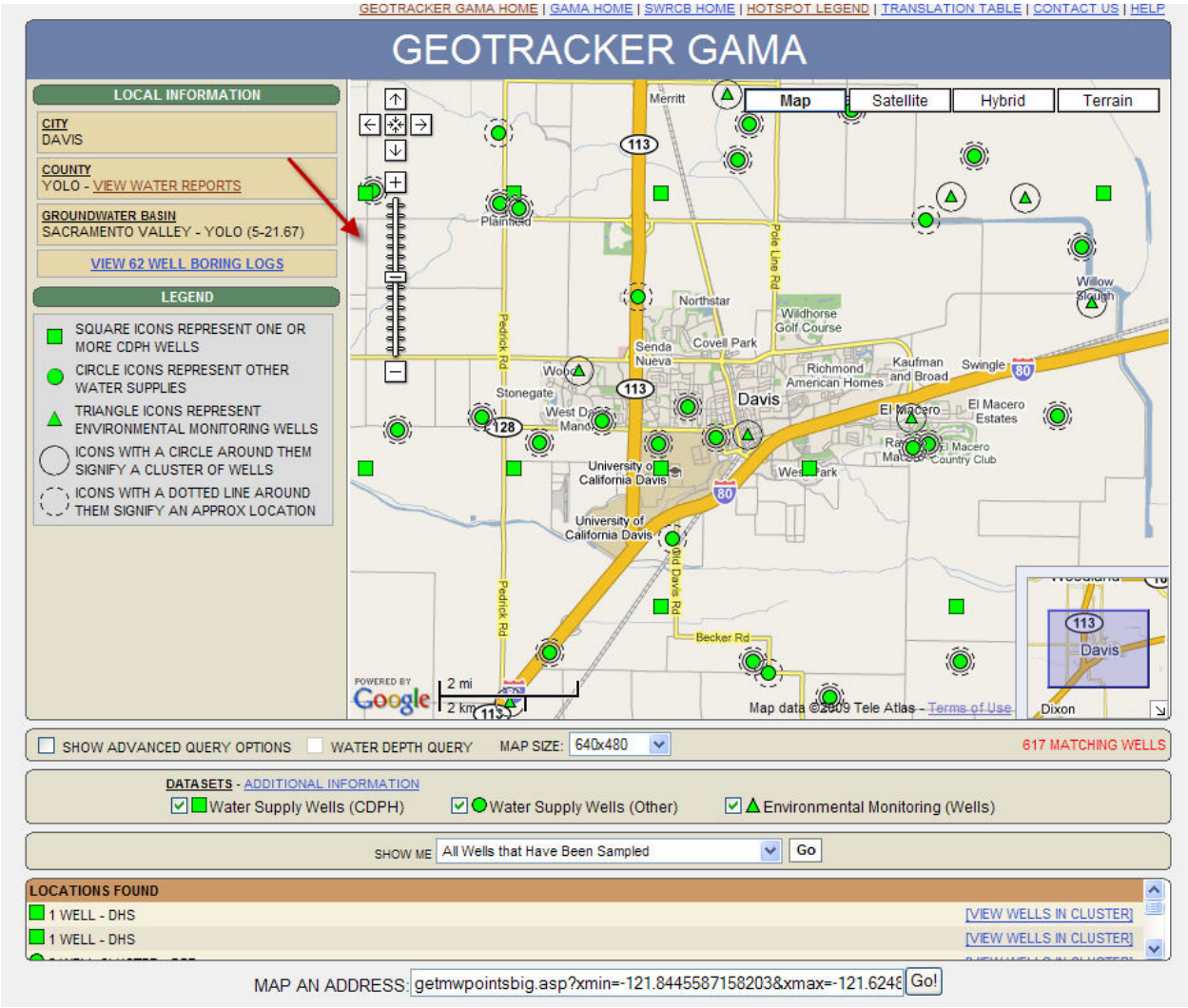
GETTING STARTED: Enter a Location

On the GeoTracker GAMA Home Page, enter the address, city, or region in the Search Window and click “Search.”



Results: Wells Sampled in Your Search Area

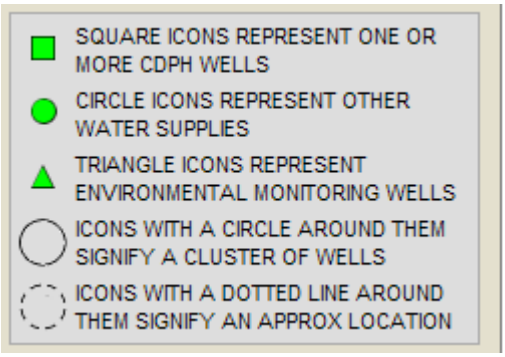
Wells that have been sampled in your search area are displayed on the Results Map. The location you entered in the Search Window will be centered on the results map. By default, *all* wells that have been sampled in the surrounding area will be displayed. An example of the Results Map display is shown below.



You can zoom in or zoom out using the magnification slider (indicated by the red arrow in the figure above), or by double clicking on any open area in the Results Map. An 'open area' is any area not occupied by a well icon.

Understanding the Results Map

Differently shaped icons are used for different types of wells. The map legend is located to the right of the Results Map, and is shown in greater detail below.



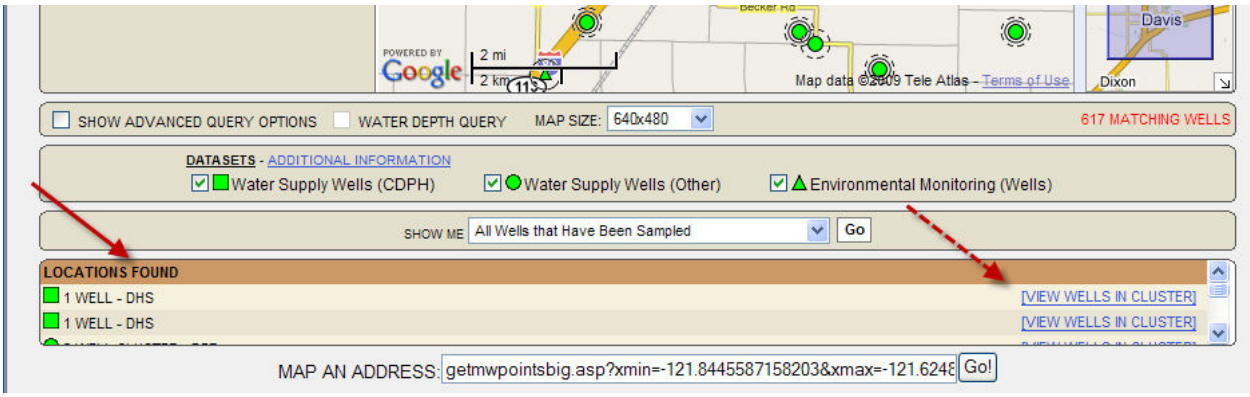
Circle icons represent other water supply wells such as irrigation wells, agricultural supply wells, or private domestic wells. To protect well owner privacy, the actual locations of these wells have been randomized by up to one-half mile. These wells are surrounded by a dashed line to signify an approximate location.

Triangle icons represent environmental monitoring wells, and are shown in their actual locations.

Sometimes there may be many wells in your search area map view. Wells that are very close to one another are grouped together and displayed as a “Cluster.” As you zoom in on the map, these clusters will break apart into either smaller clusters or into individual wells. You can click on the map icons to see a list of all of the wells within any cluster. Well clusters are also listed under Locations Found (see the **Understanding Your Search Results** section below).

Understanding Your Search Results

The results of your search are shown graphically on the Results Map, and are listed below the Results Map in a box titled “Locations Found.” The Locations Found box is indicated in the figure below by a red arrow.



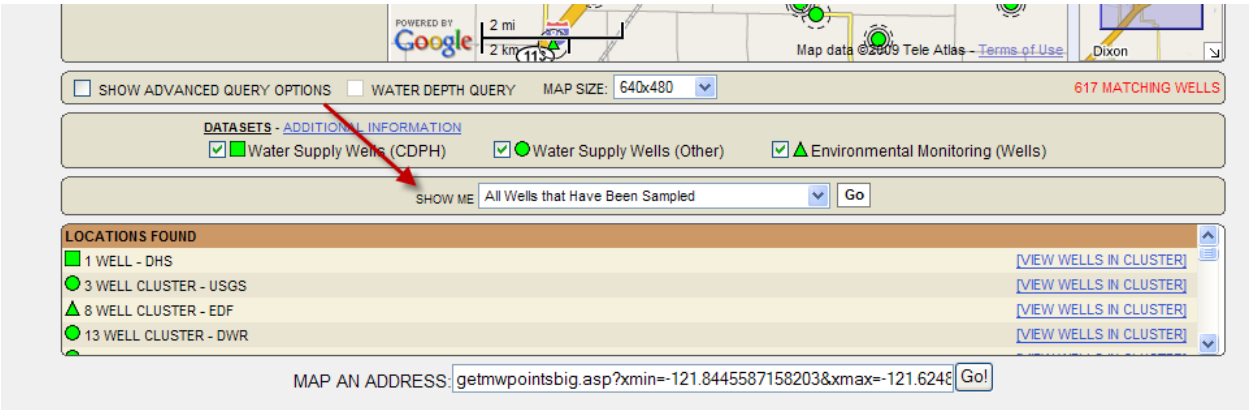
The shape of the green icon indicates what type of well was sampled. To zoom in on a cluster, double-click in an open area on the Results Map near the cluster you are interested in. To see a list of all the wells in a cluster, click on “View Wells in Cluster” link, or click directly on the icon in the Results Map. The “View Wells in Cluster” link is indicated by a dashed red arrow in the figure above.

Note that only wells of the same type are clustered together. For example, environmental monitoring wells are clustered with other environmental monitoring wells, CDPH wells are clustered with other CDPH wells, and so on.

Results for a Specific Chemical

At this point, your search has returned locations for all the wells that were sampled in your search area. To view the water chemistry data in these wells, you must choose a specific chemical.

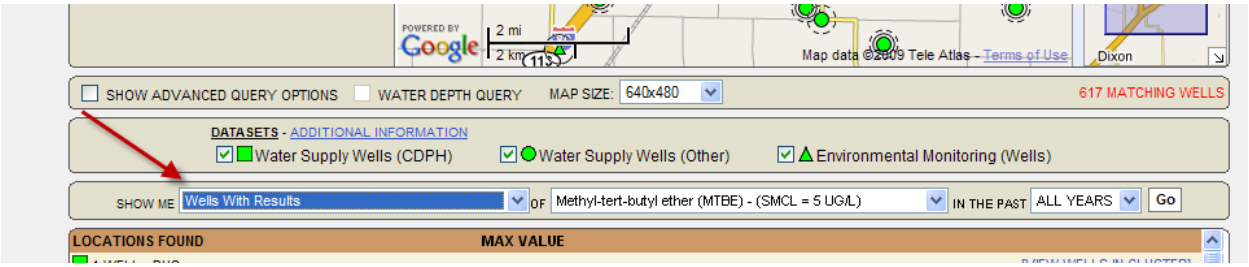
To access a list of chemicals, click on the drop-down menu in the “Show Me” box. The Show Me box is indicated by a red arrow in the figure below.



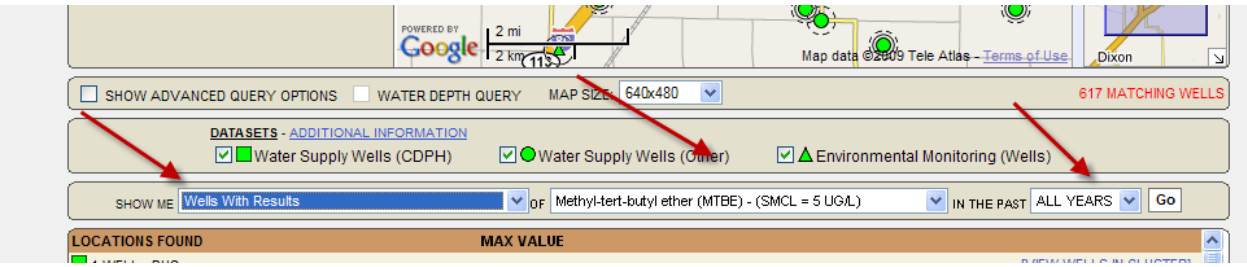
The Show Me selection expands from “All Wells that Have Been Sampled” to include:

- Wells with Results Above Drinking Water Standards
- Wells with Results

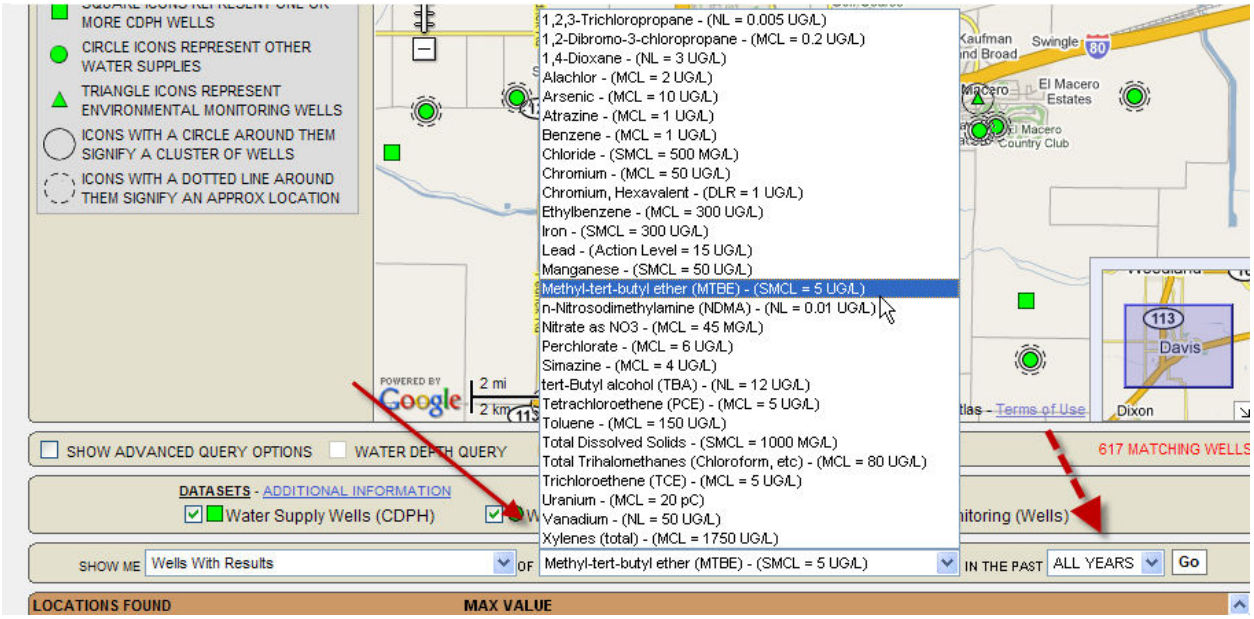
For the tutorial, select “Wells with Results.”



When you select “Wells with Results” the Show Me box expands to include two additional drop-down menus for “Chemical Constituent” and the “Time Period” in which the result was collected. These drop-down menus are indicated by red arrows in the figure below.



You can search for results from dozens of chemical constituents. Additional chemical constituents will be added in the future. The Chemical Constituent drop-down menu indicates the name of the chemical and the current drinking water standard (see below) for that chemical in parentheses. Result units for the chemical are also shown in parenthesis. A red arrow in the figure below indicates the Chemical Constituent drop-down menu.



You can also select the time frame in which to conduct your search. Search options include:

- The past year
- The past 3 years
- The past 10 years
- All available years

To select a time interval, click on the drop-down button indicated by the dashed red arrow in the figure above.

Drinking water standards shown for each chemical are set by the California Department of Public Health for public drinking water supplies. These Drinking Water Standards are used in GeoTracker GAMA to only compare against the raw groundwater test results. Drinking Water Standards include:

- MCL: Maximum Contaminant Levels are the maximum concentration of a chemical allowed by CDPH in public drinking water supplies. MCLs are health-based.

- SMCL: Secondary Maximum Contaminant Levels address aesthetic qualities, such as taste and odor.

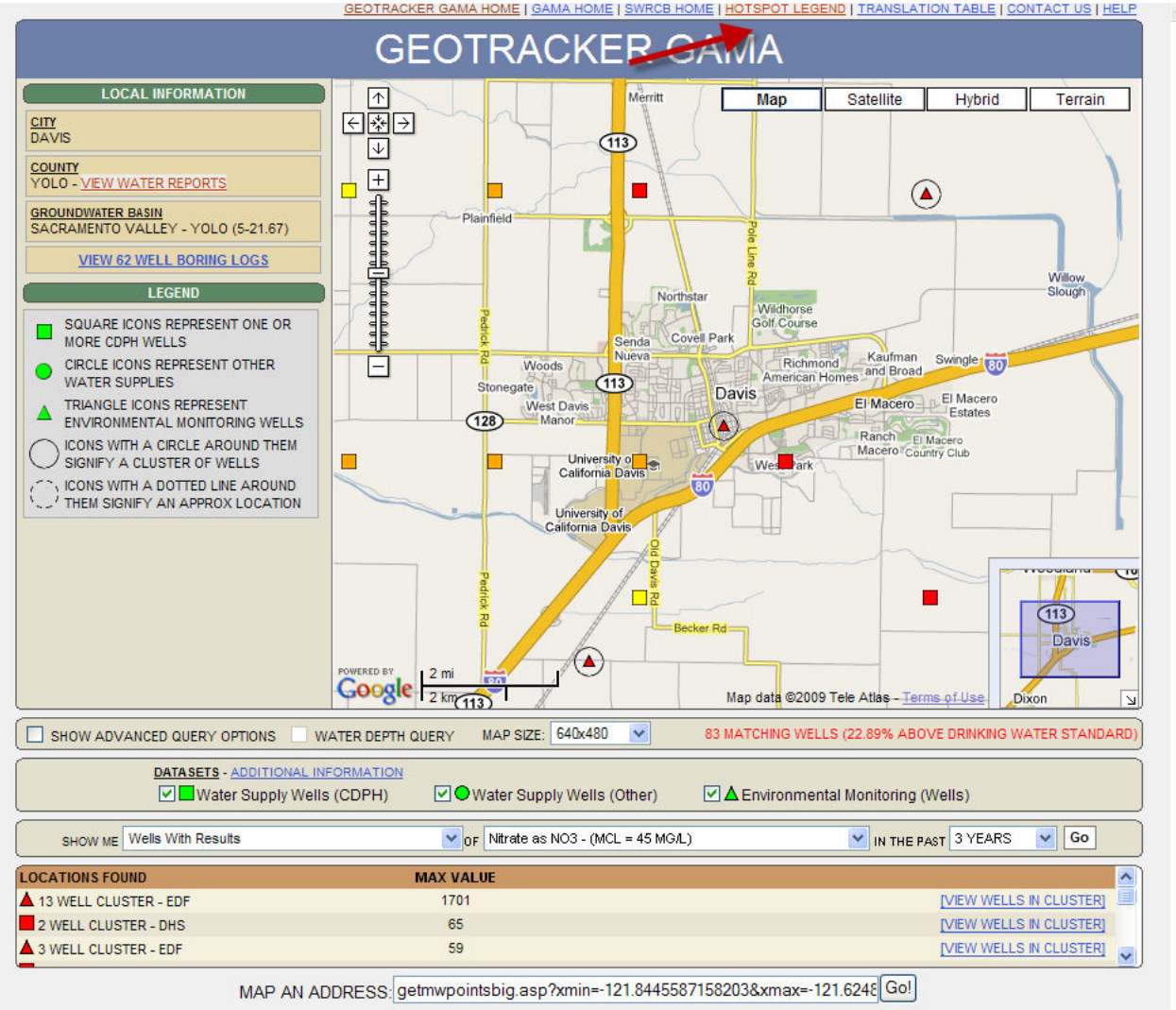
- NL: Notification Levels are health-based advisory levels for chemicals in public drinking water that have no MCL.

To continue the tutorial, select the chemical “Nitrate” from the Chemical Constituent drop-down menu. Choose “For the Past 3 Years” in the Time drop-down menu, and click “Go”. Proceed to the “Viewing Search Results” section in the tutorial, below.

Viewing Chemical-Specific Search Results

The example Results Map for wells with results of nitrate over the last 3 years is shown below for the Davis, CA area. The number of wells that match your search criteria is shown in red text immediately below the map. The percentage of these wells above a drinking water standard is shown in parenthesis.

The shape of the icons on the map remains as described above; however, now each icon is color coded. The color is described by clicking the "Hotspot Legend" link located above the Results Map (indicated by red arrow on figure below). The icon color corresponds to the *maximum observed result*, over the selected time interval, in an individual *or cluster* of wells.



Hotspot Legend

The Hotspot Legend is briefly summarized below.

- **Red** icons indicate that the maximum observed result in that well was above a drinking water standard. If the icon is a cluster, then one *or more* wells in that cluster had a result above a drinking water standard.
- **Orange** icons indicate a maximum observed result greater than one-half the drinking water standard, but less than the drinking water standard.
- **Yellow** icons indicate a maximum observed result less than one-half the drinking water standard.
- **Green** icons are wells in which the chemical was sampled, but was not detected (e.g., a "non-detect").

Each chemical will have a different drinking water standard – so the icon colors will depend on which chemical you choose in your search.

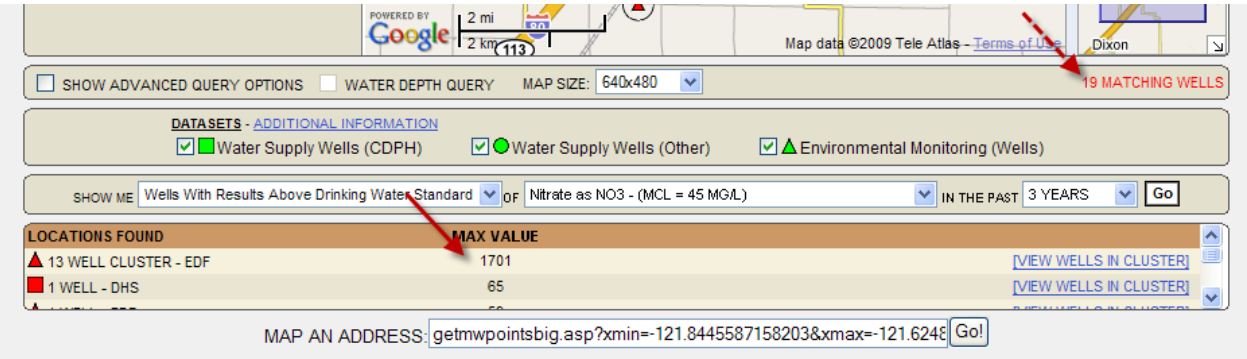
Note: Generally, red indicates the value is above the MCL, orange indicates the value is above 1/2 of the MCL, yellow indicates the value is a detection less than 1/2 of the MCL and green (not shown) represents non-detects.

CHEMICAL HOTSPOT LEGEND

CHEMICAL	DRINKING WATER STANDARD FOR PUBLIC SUPPLY WELLS (MAXIMUM CONTAMINATION LEVEL – MCL) OR OTHER STANDARD	BREAK 2
1,2,3-Trichloropropane	0.005 UG/L	0.0025 UG/L
1,2-Dibromo-3-chloropropane	0.2 UG/L	0.1 UG/L
1,4-Dioxane	3 UG/L	1.5 UG/L
Alachlor	2 UG/L	1 UG/L
Arsenic	10 UG/L	5 UG/L
Atrazine	1 UG/L	0.5 UG/L
Benzene	1 UG/L	0.5 UG/L
Chloride	500 MG/L	250 MG/L
Chromium	50 UG/L	25 UG/L
Chromium, Hexavalent	1 UG/L	0.5 UG/L
Ethylbenzene	300 UG/L	150 UG/L
Iron	300 UG/L	150 UG/L
Lead	15 UG/L	7.5 UG/L
Manganese	50 UG/L	25 UG/L
Methyl-tert-butyl ether (MTBE)	5 UG/L	2.5 UG/L
Nitrate as NO3	45 MG/L	22.5 MG/L
Perchlorate	6 UG/L	3 UG/L
Simazine	4 UG/L	2 UG/L
Tetrachloroethene (PCE)	5 UG/L	2.5 UG/L
Toluene	150 UG/L	75 UG/L
Total Dissolved Solids	1000 MG/L	500 MG/L
Total Trihalomethanes (Chloroform, etc)	80 UG/L	40 UG/L
Trichloroethene (TCE)	5 UG/L	2.5 UG/L
Uranium	20 pC	10 pC
Vanadium	50 UG/L	25 UG/L
Xylenes (total)	1750 UG/L	875 UG/L
n-Nitrosodimethylamine (NDMA)	0.01 UG/L	0.005 UG/L
tert-Butyl alcohol (TBA)	12 UG/L	6 UG/L

Locations Found

Search results are listed under the Locations Found box. To zoom in on an area in the Results Map, double-click on an open area in the map. Zooming in on an area or cluster will cause the clusters to break apart into either individual wells or smaller clusters. To view a list of all the wells in a cluster, click on the "View Wells in Cluster" link.

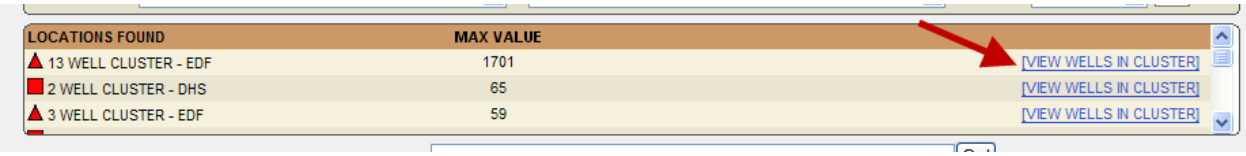


The maximum observed result in a well or cluster is also shown in the Locations Found box. The maximum observed result is located in between the well/cluster identification list and the Zoom in on Cluster link under the heading "Max Value" and is indicated by a red arrow in the figure above. The units are the same as those as shown in the chemical drop-down menu. For nitrate, the units are in milligrams per liter (mg/L).

Also shown are the total number of wells that matched the query, as well as the percentage of these wells above a drinking water standard. This information is shown in red text immediately below the results map, and is indicated in the figure above by a dashed red arrow.

Viewing Data and Graphs

To view the data from your search, click on the “View Wells in Cluster” link located in the Locations Found box. The View Wells in Cluster link is indicated by a red arrow in the figure below.

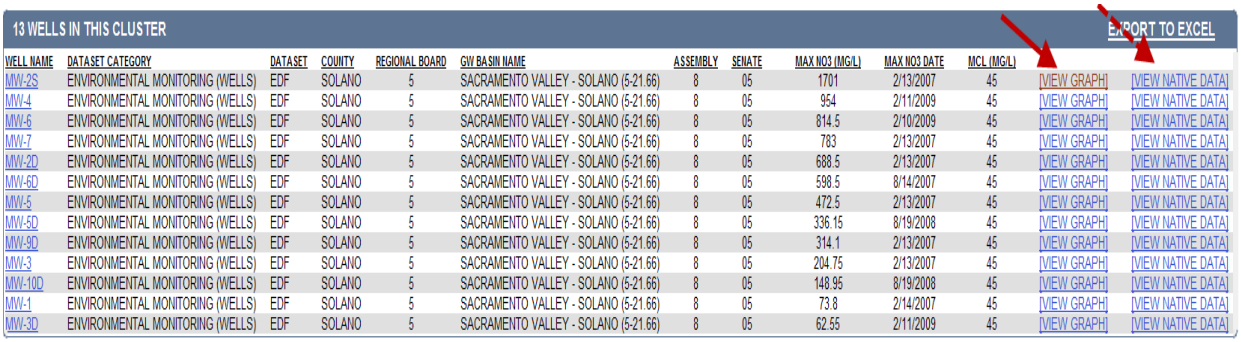


Viewing Results

Clicking on the View Wells in Cluster link opens a new window, with all of the wells within a cluster listed individually. This new window also provides additional information about the wells in that cluster. This information is organized into columns. From left to right, these columns are:

- Well Name
- Dataset Category (lists the type of well, such as environmental monitoring, public supply, etc).
- Dataset (what dataset the water sample result came from, such as CDPH, DWR, EDF, or another agency).
- County
- Regional Water Board (Number)
- Groundwater Basin Name
- Maximum observed value
- Date that the maximum was observed
- MCL/SMCL/NL – e.g., the drinking water standard for the chemical you searched for
- View Graph link
- View Native Data link

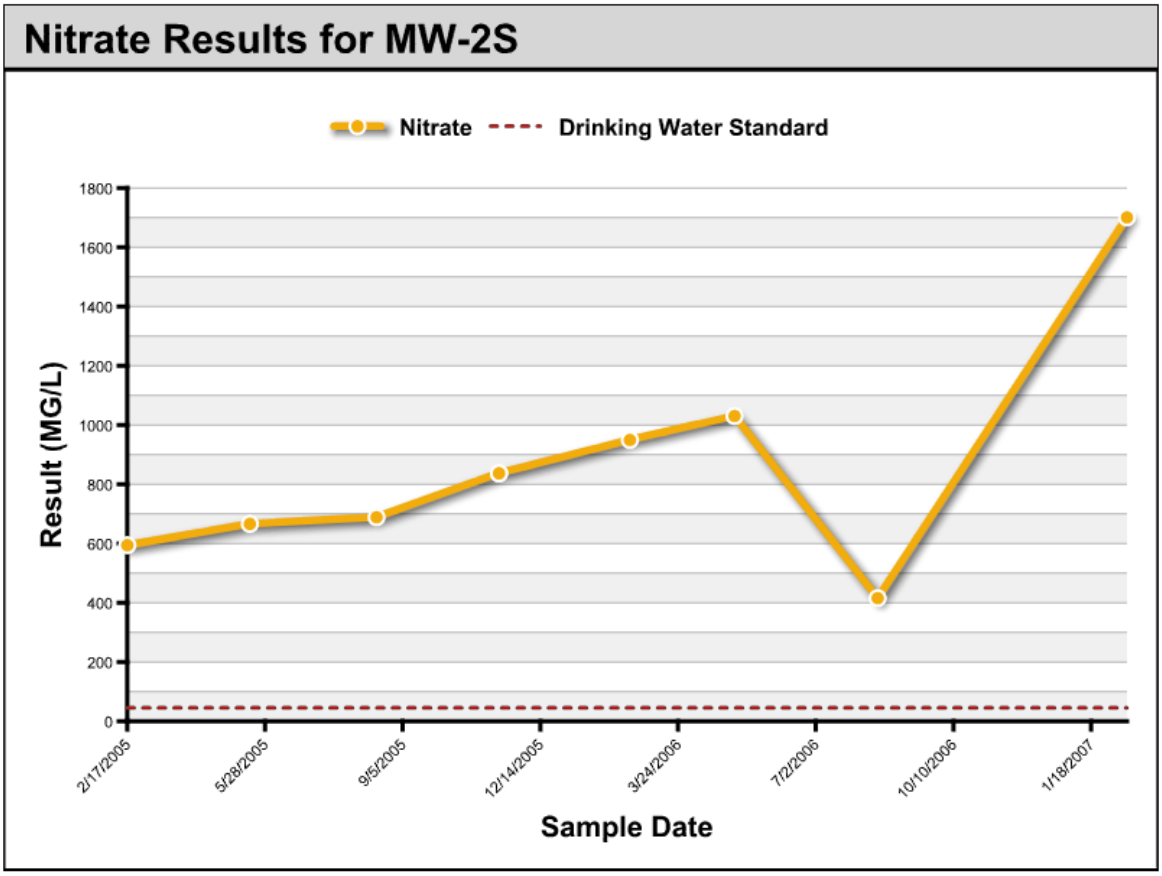
An example of the Results List is provided in the figure below.



WELL NAME	DATASET CATEGORY	DATASET	COUNTY	REGIONAL BOARD	GW BASIN NAME	ASSEMBLY	SENATE	MAX NO3 (MG/L)	MAX NO3 DATE	MCL (MG/L)		
MW-2S	ENVIRONMENTAL MONITORING (WELLS)	EDF	SOLANO	5	SACRAMENTO VALLEY - SOLANO (5-21.66)	8	05	1701	2/13/2007	45	[VIEW GRAPH]	[VIEW NATIVE DATA]
MW-4	ENVIRONMENTAL MONITORING (WELLS)	EDF	SOLANO	5	SACRAMENTO VALLEY - SOLANO (5-21.66)	8	05	954	2/11/2009	45	[VIEW GRAPH]	[VIEW NATIVE DATA]
MW-6	ENVIRONMENTAL MONITORING (WELLS)	EDF	SOLANO	5	SACRAMENTO VALLEY - SOLANO (5-21.66)	8	05	814.5	2/10/2009	45	[VIEW GRAPH]	[VIEW NATIVE DATA]
MW-7	ENVIRONMENTAL MONITORING (WELLS)	EDF	SOLANO	5	SACRAMENTO VALLEY - SOLANO (5-21.66)	8	05	783	2/13/2007	45	[VIEW GRAPH]	[VIEW NATIVE DATA]
MW-2D	ENVIRONMENTAL MONITORING (WELLS)	EDF	SOLANO	5	SACRAMENTO VALLEY - SOLANO (5-21.66)	8	05	688.5	2/13/2007	45	[VIEW GRAPH]	[VIEW NATIVE DATA]
MW-6D	ENVIRONMENTAL MONITORING (WELLS)	EDF	SOLANO	5	SACRAMENTO VALLEY - SOLANO (5-21.66)	8	05	598.5	8/14/2007	45	[VIEW GRAPH]	[VIEW NATIVE DATA]
MW-5	ENVIRONMENTAL MONITORING (WELLS)	EDF	SOLANO	5	SACRAMENTO VALLEY - SOLANO (5-21.66)	8	05	472.5	2/13/2007	45	[VIEW GRAPH]	[VIEW NATIVE DATA]
MW-5D	ENVIRONMENTAL MONITORING (WELLS)	EDF	SOLANO	5	SACRAMENTO VALLEY - SOLANO (5-21.66)	8	05	336.15	8/19/2008	45	[VIEW GRAPH]	[VIEW NATIVE DATA]
MW-9D	ENVIRONMENTAL MONITORING (WELLS)	EDF	SOLANO	5	SACRAMENTO VALLEY - SOLANO (5-21.66)	8	05	314.1	2/13/2007	45	[VIEW GRAPH]	[VIEW NATIVE DATA]
MW-3	ENVIRONMENTAL MONITORING (WELLS)	EDF	SOLANO	5	SACRAMENTO VALLEY - SOLANO (5-21.66)	8	05	204.75	2/13/2007	45	[VIEW GRAPH]	[VIEW NATIVE DATA]
MW-10D	ENVIRONMENTAL MONITORING (WELLS)	EDF	SOLANO	5	SACRAMENTO VALLEY - SOLANO (5-21.66)	8	05	148.95	8/19/2008	45	[VIEW GRAPH]	[VIEW NATIVE DATA]
MW-1	ENVIRONMENTAL MONITORING (WELLS)	EDF	SOLANO	5	SACRAMENTO VALLEY - SOLANO (5-21.66)	8	05	73.8	2/14/2007	45	[VIEW GRAPH]	[VIEW NATIVE DATA]
MW-3D	ENVIRONMENTAL MONITORING (WELLS)	EDF	SOLANO	5	SACRAMENTO VALLEY - SOLANO (5-21.66)	8	05	62.55	2/11/2009	45	[VIEW GRAPH]	[VIEW NATIVE DATA]

Viewing Graphs

To see a graph for any of the wells in the Results List, click on the “View Graph” link, indicated on the figure above by a red arrow. A graph of the chemical you searched for will open in a new window. The graph shows *all* of the reported data for that chemical in the well that you selected – not just the time period that you searched for. An example for nitrate is shown in the figure below. In the graph, the drinking water standard is shown by a dashed red line.



VIEW AS PDF

Viewing Data

You can also select the “View Native Data” link in the Results List. The View Native Data link is indicated by a dashed red arrow in the figure before the above graph. Clicking on this link opens a new window with detailed sampling information, such as date, time, methodology, and more. An example of the data display window is included in the figure below.

EDF Data Display

9 record(s) retrieved.

LOCID	LOGDATE	LOGTIME	LOGCODE	SAMPID	MATRIX	PROJNAME	LABWO	GLOBAL_ID	LABCODE	LABSAMPID	QCCODE	ANMCODE	MODPARLIST	EXM
MW-2S	8/16/2006	0938	GMCF	W-232	WG	TSI-Dixon Facility	51403	SL0609524338	APPL	AX47076	CS	E300.0	T	METH
MW-2S	2/17/2005	0925	GMCS	W112	WG	TSI-Dixon Facility	46640	SL0609524338	APPL	AX13753	CS	E300.0	T	METH
MW-2S	5/17/2005	0824	GMCF	W-127	WG	TSI-Dixon Facility	47486	SL0609524338	APPL	AX20160	CS	E300.0	T	METH
MW-2S	8/17/2005	1110	GMCF	W-149	WG	TSI-Dixon Facility	48262	SL0609524338	APPL	AX24709	CS	E300.0	T	METH
MW-2S	11/14/2005	1145	GMCF	W-155	WG	TSI-Dixon Facility	49072	SL0609524338	APPL	AX30241	CS	E300.0	T	METH
MW-2S	11/14/2005	1145	GMCF	W-155	WG	TSI-Dixon Facility	49072	SL0609524338	APPL	AX30241	CS	E300.0	T	METH
MW-2S	2/17/2006	1315	GMCF	W-189	WG	TSI-Dixon Facility	49795	SL0609524338	APPL	AX35517	CS	E300.0	T	METH
MW-2S	5/4/2006	0845	GMCF	W-210	WG	TSI-Dixon Facility	50522	SL0609524338	APPL	AX40595	CS	E300.0	T	METH
MW-2S	2/13/2007	1434	GMCF	W-248	WG	TSI-Dixon Facility	52792	SL0609524338	APPL	AX56844	CS	E300.0	T	METH

Exporting Data

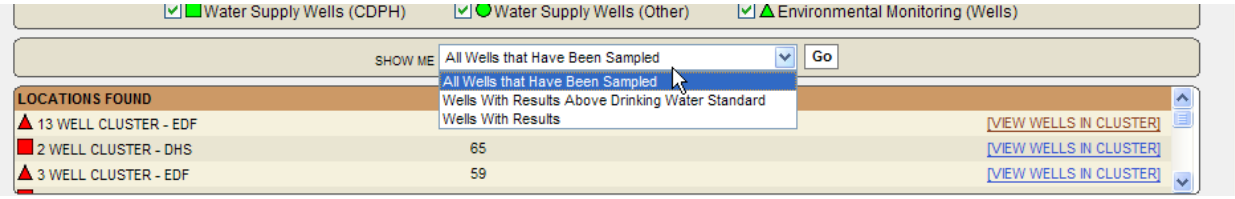
You can export the Results List to the spreadsheet program Microsoft Excel. The data in the exported Excel sheet appears as it does in the results list. To export data, select the “Export to Excel” link in the upper right corner of the results list. This link is indicated by a red arrow in the figure below.

13 WELLS IN THIS CLUSTER — EXPORT TO EXCEL

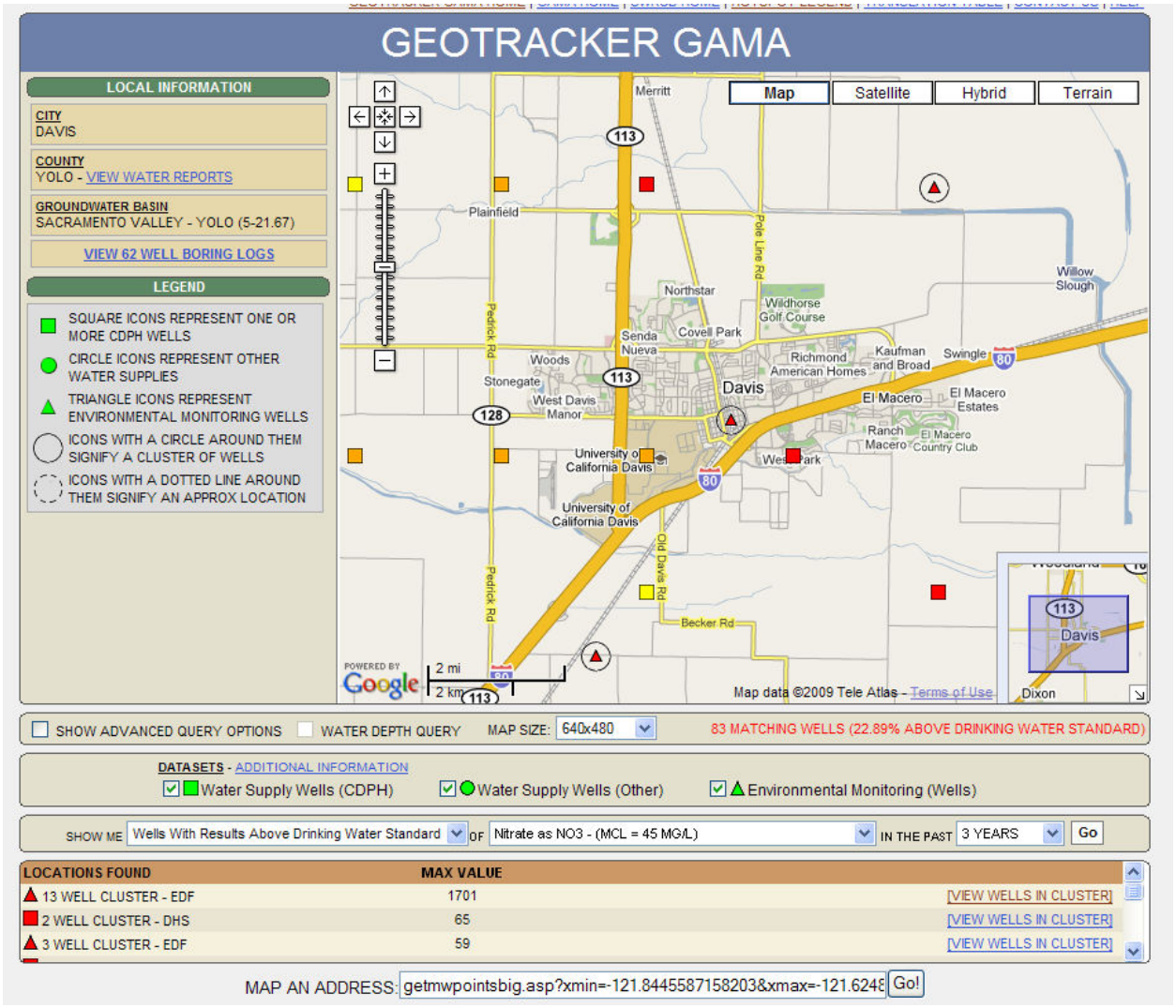
WELL NAME	DATASET CATEGORY	DATASET	COUNTY	REGIONAL BOARD	GW BASIN NAME	ASSEMBLY	SENATE	MAX NO3 (MG/L)	MAX NO3 DATE	MCL (MG/L)		
MW-2S	ENVIRONMENTAL MONITORING (WELLS)	EDF	SOLANO	5	SACRAMENTO VALLEY - SOLANO (5-21.66)	8	05	1701	2/13/2007	45	[VIEW GRAPH]	[VIEW NATIVE DATA]
MW-4	ENVIRONMENTAL MONITORING (WELLS)	EDF	SOLANO	5	SACRAMENTO VALLEY - SOLANO (5-21.66)	8	05	954	2/11/2009	45	[VIEW GRAPH]	[VIEW NATIVE DATA]
MW-6	ENVIRONMENTAL MONITORING (WELLS)	EDF	SOLANO	5	SACRAMENTO VALLEY - SOLANO (5-21.66)	8	05	814.5	2/10/2009	45	[VIEW GRAPH]	[VIEW NATIVE DATA]
MW-7	ENVIRONMENTAL MONITORING (WELLS)	EDF	SOLANO	5	SACRAMENTO VALLEY - SOLANO (5-21.66)	8	05	783	2/13/2007	45	[VIEW GRAPH]	[VIEW NATIVE DATA]
MW-2D	ENVIRONMENTAL MONITORING (WELLS)	EDF	SOLANO	5	SACRAMENTO VALLEY - SOLANO (5-21.66)	8	05	688.5	2/13/2007	45	[VIEW GRAPH]	[VIEW NATIVE DATA]
MW-6D	ENVIRONMENTAL MONITORING (WELLS)	EDF	SOLANO	5	SACRAMENTO VALLEY - SOLANO (5-21.66)	8	05	598.5	8/14/2007	45	[VIEW GRAPH]	[VIEW NATIVE DATA]
MW-5	ENVIRONMENTAL MONITORING (WELLS)	EDF	SOLANO	5	SACRAMENTO VALLEY - SOLANO (5-21.66)	8	05	472.5	2/13/2007	45	[VIEW GRAPH]	[VIEW NATIVE DATA]
MW-5D	ENVIRONMENTAL MONITORING (WELLS)	EDF	SOLANO	5	SACRAMENTO VALLEY - SOLANO (5-21.66)	8	05	336.15	8/19/2008	45	[VIEW GRAPH]	[VIEW NATIVE DATA]
MW-9D	ENVIRONMENTAL MONITORING (WELLS)	EDF	SOLANO	5	SACRAMENTO VALLEY - SOLANO (5-21.66)	8	05	314.1	2/13/2007	45	[VIEW GRAPH]	[VIEW NATIVE DATA]
MW-3	ENVIRONMENTAL MONITORING (WELLS)	EDF	SOLANO	5	SACRAMENTO VALLEY - SOLANO (5-21.66)	8	05	204.75	2/13/2007	45	[VIEW GRAPH]	[VIEW NATIVE DATA]
MW-10D	ENVIRONMENTAL MONITORING (WELLS)	EDF	SOLANO	5	SACRAMENTO VALLEY - SOLANO (5-21.66)	8	05	148.95	8/19/2008	45	[VIEW GRAPH]	[VIEW NATIVE DATA]
MW-1	ENVIRONMENTAL MONITORING (WELLS)	EDF	SOLANO	5	SACRAMENTO VALLEY - SOLANO (5-21.66)	8	05	73.8	2/14/2007	45	[VIEW GRAPH]	[VIEW NATIVE DATA]
MW-3D	ENVIRONMENTAL MONITORING (WELLS)	EDF	SOLANO	5	SACRAMENTO VALLEY - SOLANO (5-21.66)	8	05	62.55	2/11/2009	45	[VIEW GRAPH]	[VIEW NATIVE DATA]

Results Above a Drinking Water Standard

An additional search option, Wells with Results above Drinking Water Standards, is available in the Show Me box. This selection filters the data so that only wells with a maximum observed result greater than an MCL/SMCL/NL are shown. Select the "Wells With Results Above Drinking Water Standard" from the Show Me drop-down menu.



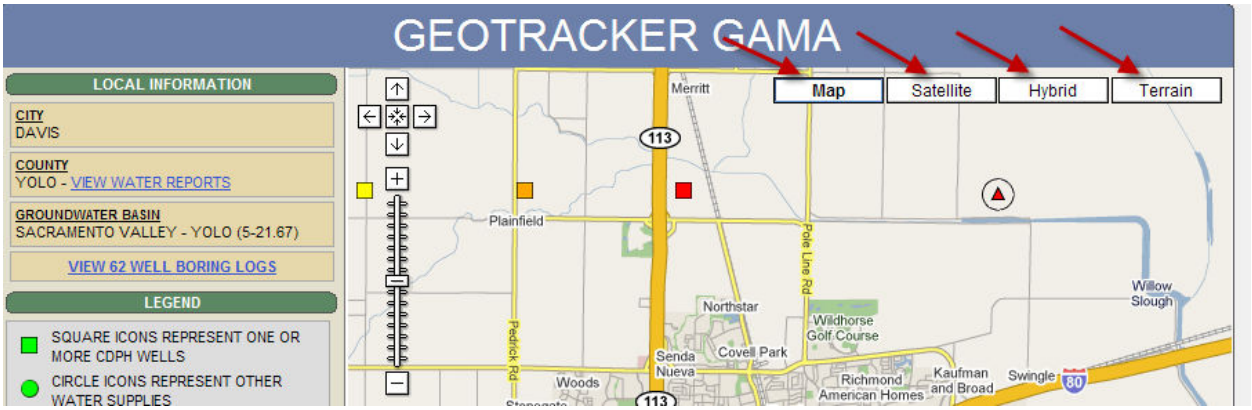
Selecting Nitrate over the past 3 years results in the map shown below. Note that all of the displayed icons are red – in this case, because the search specifically returned only those wells where the maximum observed result over the last 3 years was greater than the drinking water standard. The Hotspot Legend and chemical drop-down menu (described above) show that, for nitrate, all well icons will be color-coded red when the maximum observed concentration is greater than 45 mg/L.


GEOTRACKER GAMA
LOCAL INFORMATION
CITY
DAVIS
COUNTY
YOLO - VIEW WATER REPORTS
GROUNDWATER BASIN
SACRAMENTO VALLEY - YOLO (5-21.67)
VIEW 62 WELL BORING LOGS
LEGEND
SQUARE ICONS REPRESENT ONE OR MORE CDPH WELLS
CIRCLE ICONS REPRESENT OTHER WATER SUPPLIES
TRIANGLE ICONS REPRESENT ENVIRONMENTAL MONITORING WELLS
ICONS WITH A CIRCLE AROUND THEM SIGNIFY A CLUSTER OF WELLS
ICONS WITH A DOTTED LINE AROUND THEM SIGNIFY AN APPROX LOCATION
Map
Satellite
Hybrid
Terrain
Merritt
Plainfield
Northstar
Wildhorse Golf Course
Willow Slough
Pole Line Rd
Pedrick Rd
Senda Nueva
Covell Park
Woods
Stonegate
West Davis Manor
Richmond American Homes
Kaufman and Broad
Swingle
Davis
El Macero
El Macero Estates
Ranch Macero
El Macero Country Club
University of California Davis
Old Davis Rd
Becker Rd
Dixon
POWERED BY Google
2 mi
2 km
Map data ©2009 Tele Atlas - Terms of Use
SHOW ADVANCED QUERY OPTIONS
WATER DEPTH QUERY
MAP SIZE: 640x480
83 MATCHING WELLS (22.89% ABOVE DRINKING WATER STANDARD)
DATASETS - ADDITIONAL INFORMATION
Water Supply Wells (CDPH)
Water Supply Wells (Other)
Environmental Monitoring (Wells)
SHOW ME Wells With Results Above Drinking Water Standard OF Nitrate as NO3 - (MCL = 45 MG/L) IN THE PAST 3 YEARS Go
LOCATIONS FOUND
MAX VALUE
13 WELL CLUSTER - EDF 1701 [VIEW WELLS IN CLUSTER]
2 WELL CLUSTER - DHS 65 [VIEW WELLS IN CLUSTER]
3 WELL CLUSTER - EDF 59 [VIEW WELLS IN CLUSTER]
MAP AN ADDRESS: getmwpointsbig.asp?xmin=-121.8445587158203&xmax=-121.624 Go!

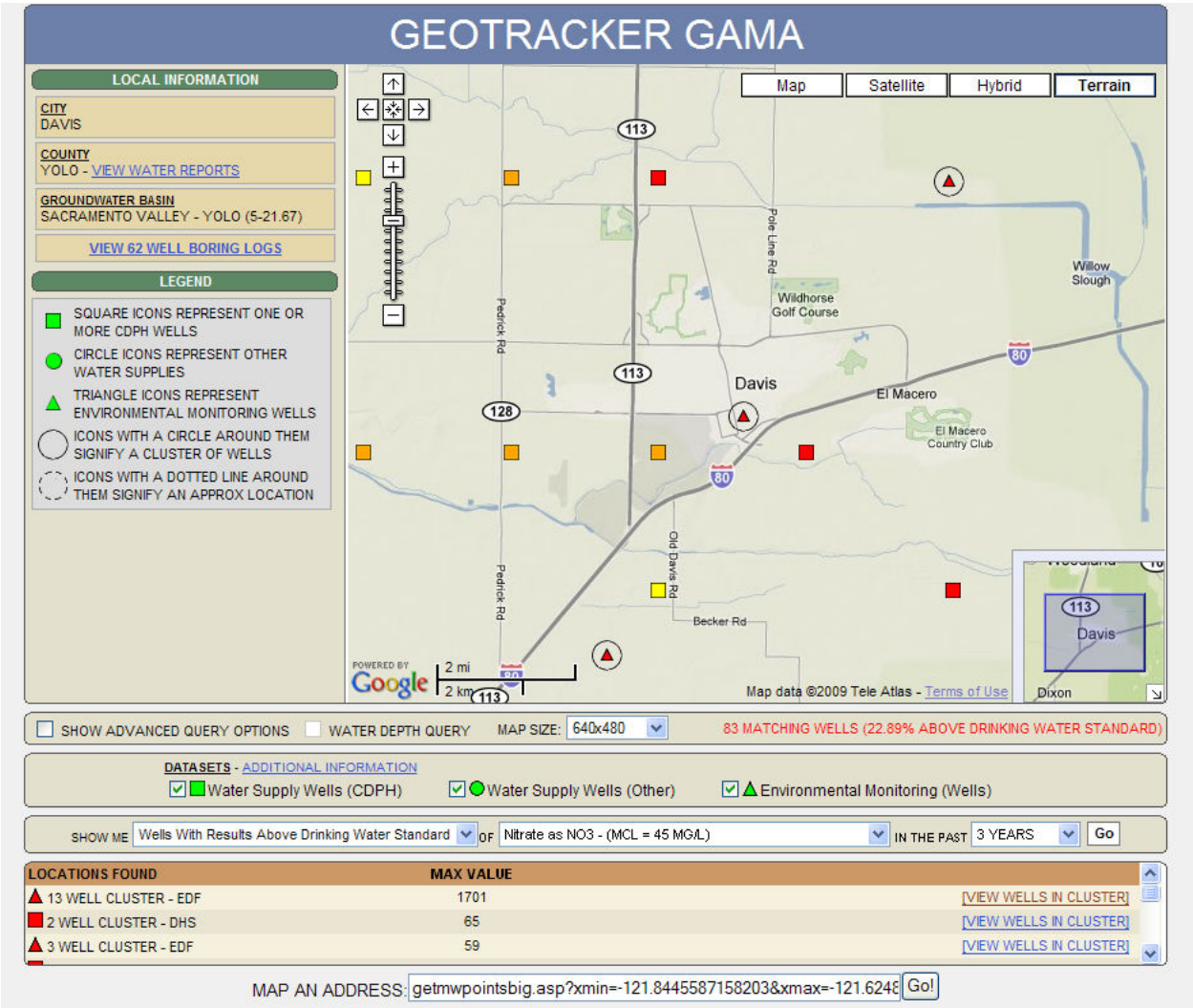
Other Tools and Options

Changing the Map Display

There are several additional tools and options available on the Results Map. You can change how the Results Map is displayed by selecting one of four types of maps in the upper right corner (shown by red arrows in figure below). By default, the Map view is shown when you start GeoTracker GAMA. Other available views include Satellite, Hybrid, and Terrain.

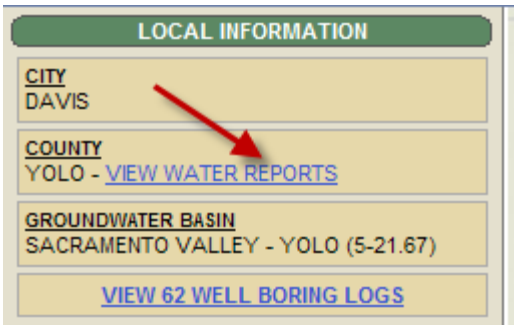


An example of a GeoTracker GAMA Results Map using the “Terrain” view is shown in the figure below.



Local Information

A box titled Local Information is included in the upper left corner immediately to the left of the Results Map. A close-up of this box is included as a figure below. The Local Information box includes useful data regarding the Results Map. The city and county at the center of the Results Map is listed in the Local Information box. The Department of Water Resources (DWR)-defined groundwater basin is also listed. You can select the "View Water Reports" link, next to the County heading, to see published groundwater reports for that county and groundwater basin. The link is indicated on the figure below by a red arrow. You can also view available boring logs for environmental monitoring wells near your search area.



When you click on the “View Water Reports” link, a new window will open up with a list of water reports available (shown as Adobe PDF files). Included in these links are relevant DWR Bulletin 118 Groundwater Basin and sub-basin reports. Additional linked reports include GAMA Special Studies and GAMA Priority Basins Project reports, amongst others.

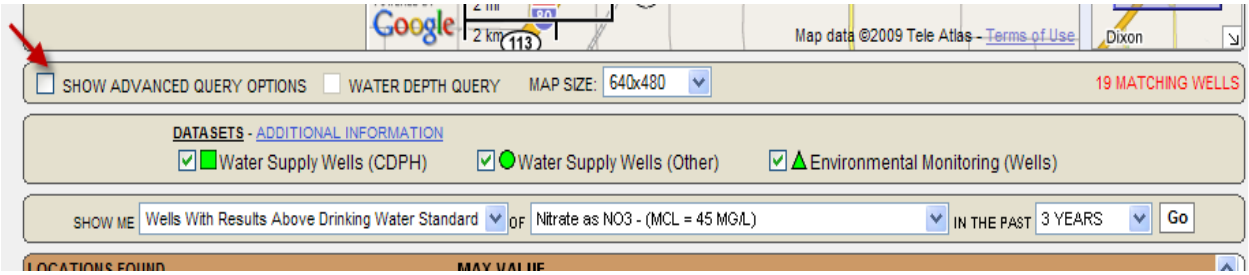
WATER REPORT LINKS FOR YOLO COUNTY

- SACRAMENTO RIVER HYDROLOGIC REGION
- GROUND WATER QUALITY DATA IN THE MIDDLE SACRAMENTO VALLEY STUDY UNIT-GAMA
- GROUND WATER QUALITY DATA IN THE SOUTHERN SACRAMENTO VALLEY GAMA
- CALIFORNIA'S GROUNDWATER-BULLETIN 118, UPDATE 2003 (SOLANO 5-21.66)
- CALIFORNIA'S GROUNDWATER-BULLETIN 118, UPDATE 2003 (COLUSA 5-21.52)
- CALIFORNIA'S GROUNDWATER-BULLETIN 118, UPDATE 2003 (YOLO 5-21.67)
- CALIFORNIA'S GROUNDWATER-BULLETIN 118, UPDATE 2003 (CAPAY VALLEY 5-21.68)
- CALIFORNIA'S GROUNDWATER-BULLETIN 118, UPDATE 2003
- DENITRIFICATION A SHALLOW AQUIFER UNDERLYING A DAIRY FARM: NEW APPROACHES TO CHARACTERIZATION AND MODELING: UCRL-PRES-207404
- NITRATE CONTAMINATION IN CALIFORNIA GROUNDWATER: AN INTEGRATED APPROACH TO BASIN ASSESSMENT AND RESOURCE PROTECTION
- PESTICIDE CONTAMINATION PREVENTION ACT ANNUAL REPORT TO THE LEGISLATURE -STATE WATER RESOURCES CONTROL BOARD DECEMBER 2008

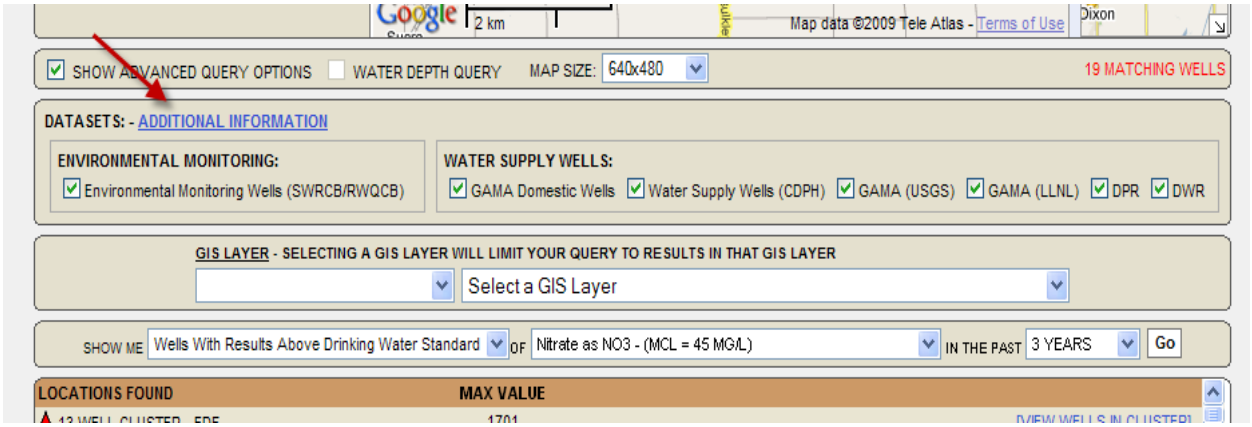
Advanced Query Options

Advanced Query Options

By default, advanced query options are not activated when you start GeoTracker GAMA. To activate these features, click on the “Show Advanced Query Options” button, located below the Results Map. The button is indicated in the figure below by a red arrow.

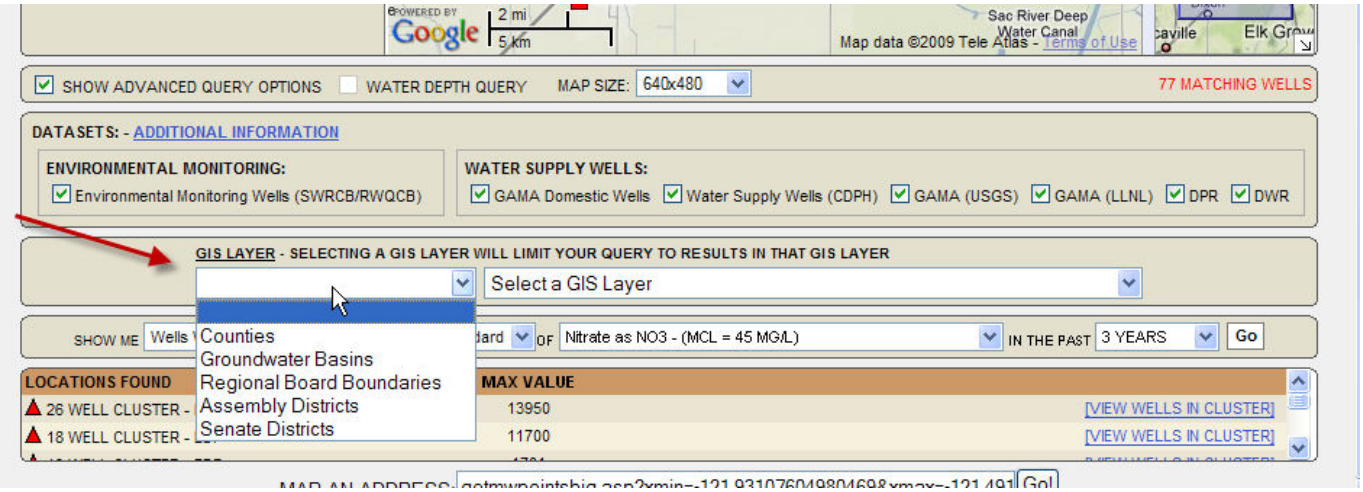


When the Advanced Query Options button is selected, the Datasets box expands to reveal seven different datasets: Environmental monitoring wells, GAMA Domestic Wells, Water Supply Wells (CDPH), GAMA (USGS), GAMA (LLNL), DPR, and DWR. The types and sources of data in each of these datasets are explained in the Additional Information link, indicated by a red arrow in the figure below. Individual datasets can be clicked on or off to search for results specific to any dataset. By default, all datasets are on when the Advanced Query Options button is activated.



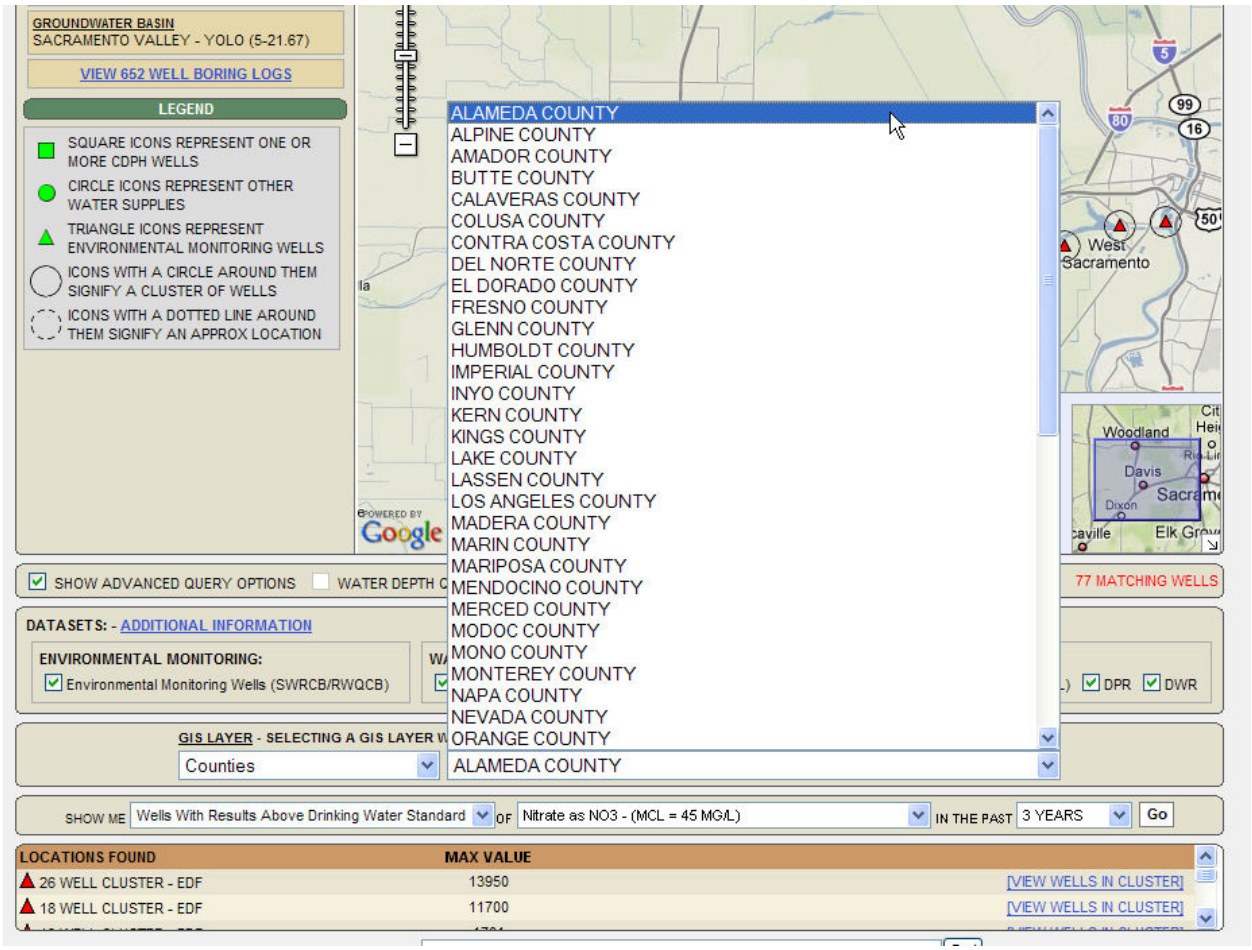
GIS Layers: Counties, Groundwater Basins, and Regional Board Boundaries

Activating the advanced query options opens a GIS Layer box below the Datasets box. You can select from five GIS layers: Counties, Groundwater Basins, Regional Board Boundaries, Assembly District, and Senate District. To select from one of these layers, click on the GIS-layer drop-down button (indicated by a red arrow in the figure below).



Once a GIS-layer has been chosen, you can select the area you're interested in. The wells that are displayed on the Results Map will be limited to those within the GIS layer you selected. The outline of the GIS layer will also be outlined on the Results Map.

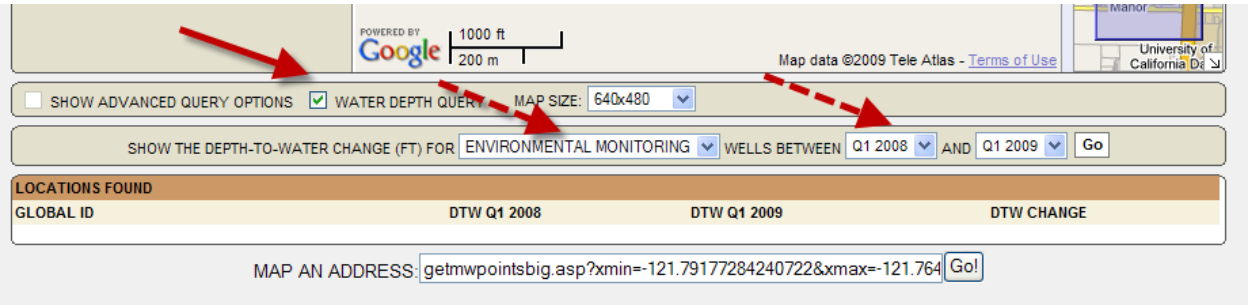
In the figure below, the "Counties" GIS-layer was selected. A list of counties appears in the drop-down menu to the right. You can select from any county in the state of California – once you have made your selection, click on "Go" and the Results Map will display query results for your search.


GROUNDWATER BASIN
SACRAMENTO VALLEY - YOLO (5-21.67)
VIEW 652 WELL BORING LOGS
LEGEND
SQUARE ICONS REPRESENT ONE OR MORE CDPH WELLS
CIRCLE ICONS REPRESENT OTHER WATER SUPPLIES
TRIANGLE ICONS REPRESENT ENVIRONMENTAL MONITORING WELLS
ICONS WITH A CIRCLE AROUND THEM SIGNIFY A CLUSTER OF WELLS
ICONS WITH A DOTTED LINE AROUND THEM SIGNIFY AN APPROX LOCATION
ALAMEDA COUNTY
ALPINE COUNTY
AMADOR COUNTY
BUTTE COUNTY
CALAVERAS COUNTY
COLUSA COUNTY
CONTRA COSTA COUNTY
DEL NORTE COUNTY
EL DORADO COUNTY
FRESNO COUNTY
GLENN COUNTY
HUMBOLDT COUNTY
IMPERIAL COUNTY
INYO COUNTY
KERN COUNTY
KINGS COUNTY
LAKE COUNTY
LASSEN COUNTY
LOS ANGELES COUNTY
MADERA COUNTY
MARIN COUNTY
MARIPOSA COUNTY
MENDOCINO COUNTY
MERCED COUNTY
MODOC COUNTY
MONO COUNTY
MONTEREY COUNTY
NAPA COUNTY
NEVADA COUNTY
ORANGE COUNTY
West Sacramento
Woodland
Davis
Dixon
Elk Grove
Google
SHOW ADVANCED QUERY OPTIONS
WATER DEPTH
77 MATCHING WELLS
DATASETS: - ADDITIONAL INFORMATION
ENVIRONMENTAL MONITORING:
Environmental Monitoring Wells (SWRCB/RWQCB)
DPR
DWR
GIS LAYER - SELECTING A GIS LAYER
Counties
ALAMEDA COUNTY
SHOW ME
Wells With Results Above Drinking Water Standard
OF
Nitrate as NO3 - (MCL = 45 MG/L)
IN THE PAST
3 YEARS
Go
LOCATIONS FOUND
MAX VALUE
26 WELL CLUSTER - EDF
13950
[VIEW WELLS IN CLUSTER]
18 WELL CLUSTER - EDF
11700
[VIEW WELLS IN CLUSTER]

Water Depth Query

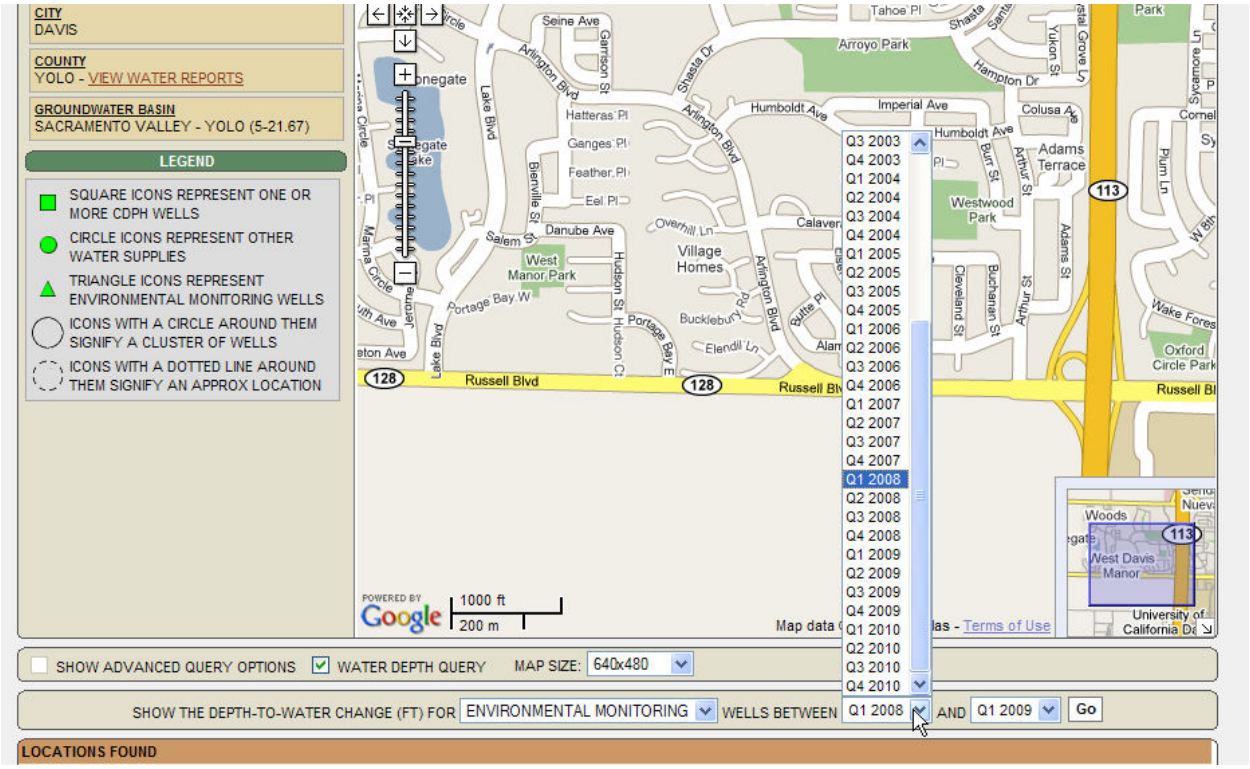
A Water Depth Query allows you to investigate changes in water depth at environmental monitoring sites. Water level data is available for approximately the last 9 years, although records for every site do not extend for this entire time.

To explore groundwater level changes, you first have to zoom in on the area you're interested in. Once you have reached a map view with sufficient resolution, the Water Depth Query button will un-shade itself, turning from gray to white. You can click on this button to activate the water depth query. The "Water Depth Query" button is indicated by a red arrow in the figure below.



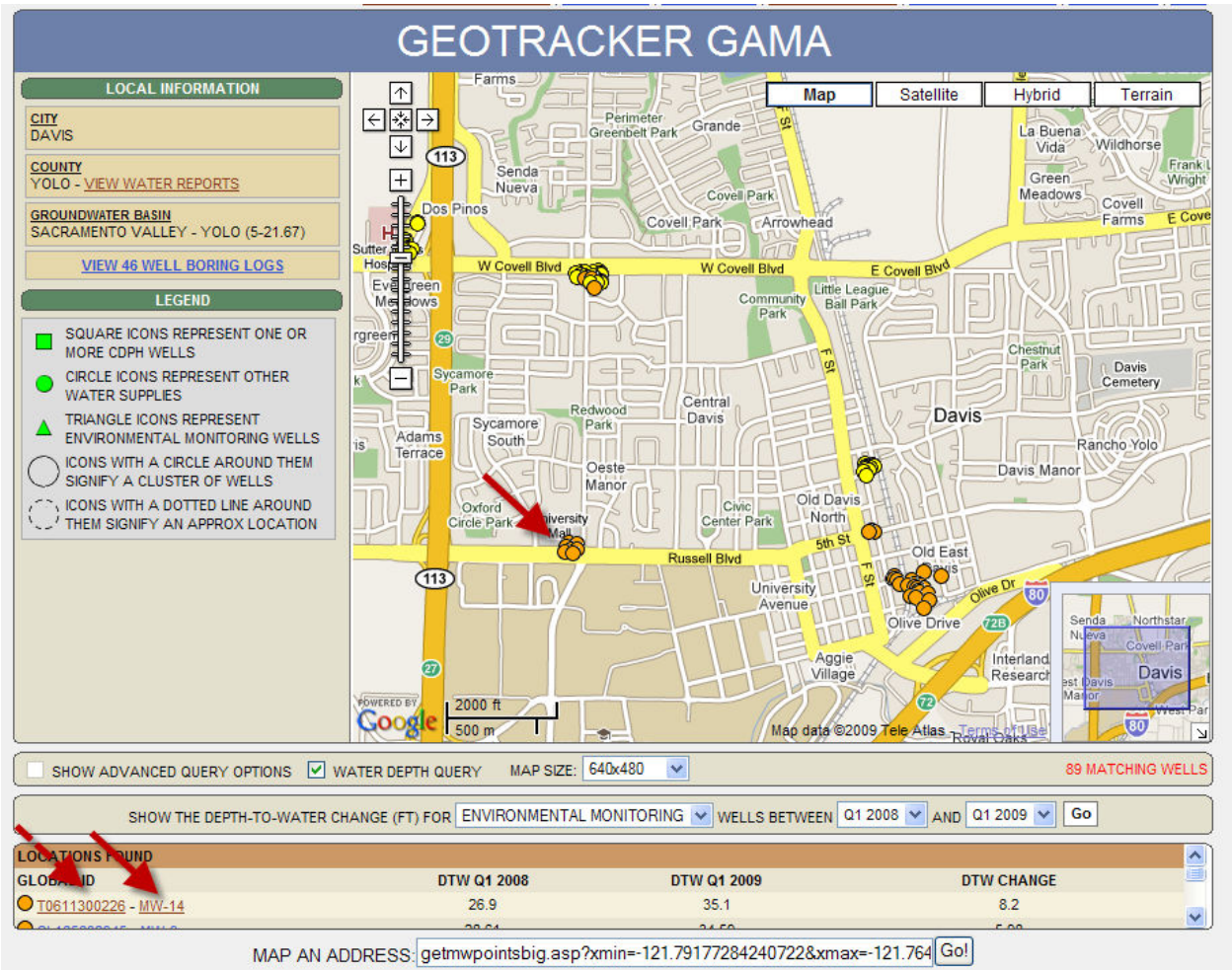
When you activate the Water Depth Query, an additional box will open below the map. This box is indicated by a dashed red arrow in the figure above. You can query for changes in depth to water using the drop-down menu in this box. The query is only available for Environmental Monitoring wells at this time.

The Water Depth query looks at changes in groundwater elevation between different monitoring periods of the year. The monitoring periods are broken down into quarters, and are labeled Q1, Q2, Q3, and Q4 (for Quarter 1, Quarter 2, etc.), followed by the year. Each quarter corresponds to three months of the year. Q1 corresponds to January through March. Q2 corresponds to April through June. Q3 corresponds to July through September, and Q4 corresponds to October through December. You can choose between different monitoring periods using the drop-down menu indicated by dashed red arrows in the figure above. An example view of the drop-downs is shown in the figure below.


CITY
DAVIS
COUNTY
YOLO - VIEW WATER REPORTS
GROUNDWATER BASIN
SACRAMENTO VALLEY - YOLO (5-21.67)
LEGEND
SQUARE ICONS REPRESENT ONE OR MORE CDPH WELLS
CIRCLE ICONS REPRESENT OTHER WATER SUPPLIES
TRIANGLE ICONS REPRESENT ENVIRONMENTAL MONITORING WELLS
ICONS WITH A CIRCLE AROUND THEM SIGNIFY A CLUSTER OF WELLS
ICONS WITH A DOTTED LINE AROUND THEM SIGNIFY AN APPROX LOCATION
Seine Ave
Arroyo Park
Tahoe Pl
Hampton Dr
Imperial Ave
Humboldt Ave
Colusa Ave
Adams Terrace
Westwood Park
Hatteras Pl
Ganges Pl
Feather Pl
Eel Pl
Danube Ave
West Manor Park
Village Homes
Overhill Ln
Salem St
Portage Bay W
Buckleburry Rd
Elendil Ln
Russell Blvd
Oxford Circle Park
Woods
West Davis Manor
University of California
113
128
POWERED BY Google
1000 ft
200 m
Map data
Terms of Use
Q3 2003
Q4 2003
Q1 2004
Q2 2004
Q3 2004
Q4 2004
Q1 2005
Q2 2005
Q3 2005
Q4 2005
Q1 2006
Q2 2006
Q3 2006
Q4 2006
Q1 2007
Q2 2007
Q3 2007
Q4 2007
Q1 2008
Q2 2008
Q3 2008
Q4 2008
Q1 2009
Q2 2009
Q3 2009
Q4 2009
Q1 2010
Q2 2010
Q3 2010
Q4 2010
SHOW ADVANCED QUERY OPTIONS
WATER DEPTH QUERY
MAP SIZE: 640x480
SHOW THE DEPTH-TO-WATER CHANGE (FT) FOR ENVIRONMENTAL MONITORING WELLS BETWEEN Q1 2008 AND Q1 2009 Go
LOCATIONS FOUND

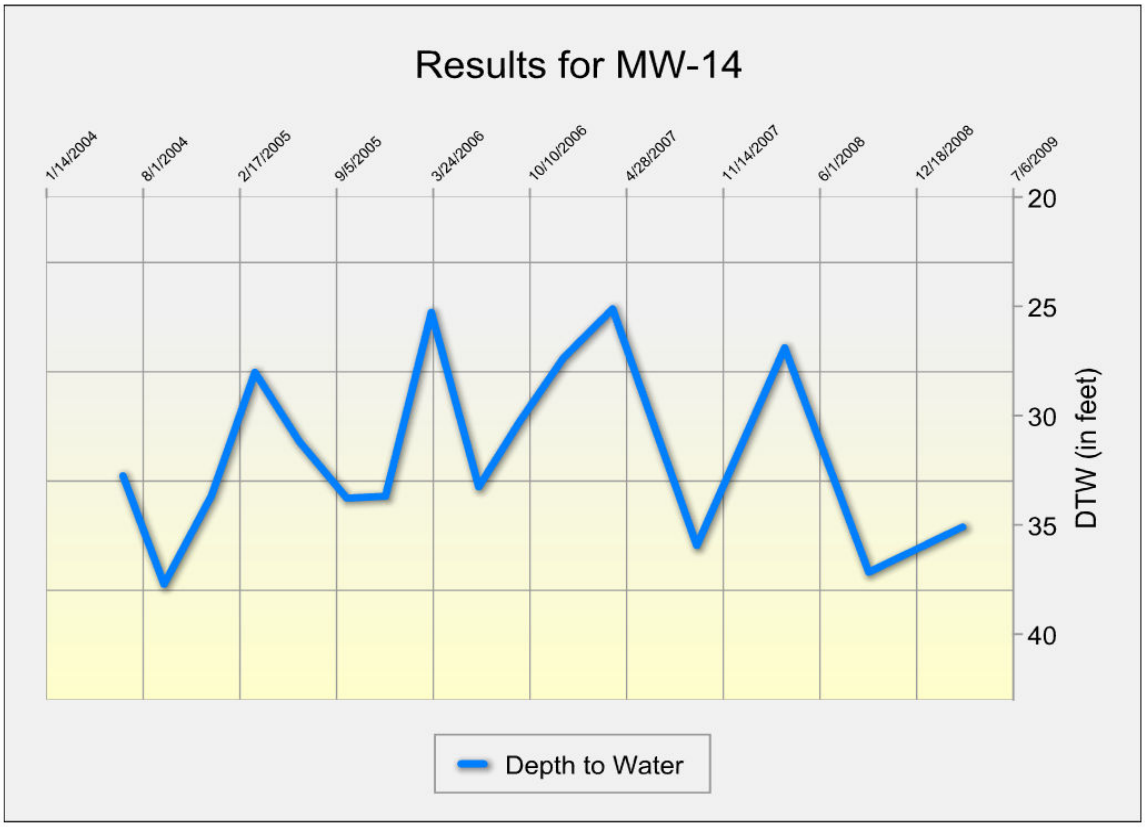
The results are displayed on the map by color-coded dots.

- A **Green** dot indicates that depth to water (DTW) in that well has increased by three or more feet, between the quarters that you selected.
- A **Yellow** dot indicates that water level has remained relatively stationary, and has not either increased or decreased by more than three feet.
- An **Orange** dot indicates that the water level has decreased more than three feet.



Clicking on the name of the well under the “Locations Found” box or clicking on the well location dot on the map – as indicated by the red arrows in the figure above – will open a graph showing all water level information available for that source.

An example of a depth-to-water graph is shown in the figure below.



VIEW PDF VERSION

Information on environmental monitoring wells is available to the public. Click on the Global ID number in the Locations Found box to access GeoTracker GAMA Data related to a specific well. The Global ID is indicated in the figure above by a dashed red arrow.